

CLAIMS

1. An information record medium on which there are recorded:
a series of content information;
5 menu information as for said content information, which is to
be displayed with said content information during reproduction of
said content information; and
play list information for defining reproduction sequence of
said content information by a unit of item, which constitutes said
10 content information and which is accessible upon reproducing,
said play list information including: item information for
specifying each item which constitutes said content information; and
slave item information for specifying said menu information
corresponding to said each item as a slave item.
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2. The information record medium according to claim 1, wherein
said menu information specified by the slave item information is
further recorded in said play list information, as common
information commonly used by a plurality of slave items.
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3. The information record medium according to claim 1, on which
there is further recorded reproduction control information for
controlling such that said menu information specified by the slave
item information is displayed with being superimposed on or in place
25 of one portion of said content information corresponding to said menu
information specified by the slave item information or is not

displayed at all, selectively in accordance with external specification,
in reproducing.

4. The information record medium according to claim 1, wherein
5 the slave item information further specifies a reproduction time
point of said menu information, with a reproduction time point of
said content information as a standard.

5. The information record medium according to claim 1, wherein
10 the slave item information further specifies a display position and a
size of a small window, in displaying said menu information as the
small window on a display of said content information.

6. The information record medium according to claim 1, wherein
15 said menu information is recorded together with said content
information, in a content space in which said content information is
recorded and which occupies one area of a record area.

7. The information record medium according to claim 1, wherein
20 said content information and said menu information are multiplexed
and recorded by a unit of packet, which is a physically accessible unit
and which stores a piece of said menu information and said content
information respectively.

25 8. The information record medium according to claim 1, wherein
said menu information is recorded by a predetermined packet unit, as

another object different from an object constructed by said content information.

9. An information record apparatus, comprising:

5 a first record device for recording a series of content information and menu information as for said content information, which is to be displayed with said content information during reproduction of said content information; and

a second record device for recording play list information for
10 defining reproduction sequence of said content information by a unit of item, which constitutes said content information and which is accessible upon reproducing,

said second record device recording said play list information such that said play list information includes: item information for
15 specifying each item which constitutes said content information; and slave item information for specifying said menu information corresponding to said each item as a slave item.

10. An information record method, comprising:

20 a first record process of recording a series of content information and menu information as for said content information, which is to be displayed with said content information during reproduction of said content information; and

a second record process of recording play list information for
25 defining reproduction sequence of said content information by a unit of item, which constitutes said content information and which is

accessible upon reproducing,

said second record process recording said play list information such that said play list information includes: item information for specifying each item which constitutes said content information; and
5 slave item information for specifying said menu information corresponding to said each item as a slave item.

11. An information reproduction apparatus for reproducing said information record medium according to claim 1, said information
10 reproduction apparatus comprising:

a reproduction device capable of reproducing said content information, said menu information and said play list information;

a displaying and outputting device capable of displaying and outputting said content information and said menu information;

15 a specifying device capable of externally specifying whether to display or not to display said menu information on said displaying and outputting device; and

a control device for controlling said reproduction device to reproduce said content information and said menu information, in
20 accordance with the item information and the slave item information included in said play list information reproduced by said reproducing device, and for controlling said displaying and outputting device such that said reproduced menu information is displayed and outputted with being superimposed on or in place of one portion of said
25 reproduced content information corresponding to said reproduced menu information or is not displayed at all, selectively in accordance

with external specification by said specifying device.

12. The information reproduction apparatus according to claim 11,
wherein said control device controls said displaying and outputting
5 device so as to display and output said reproduced menu information
as a small window on said reproduced content information, in
accordance with a display position and a size of the small window,
which are further specified by the slave item information included in
said reproduced play list information.

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13. The information reproduction apparatus according to claim 11,
further comprising a buffer memory for maintaining said reproduced
menu information in a readily displayable and outputtable condition,
for a predetermined period, regardless of whether or not said
15 reproduced menu information is displayed and outputted by said
displaying and outputting device.

14. An information reproduction method of reproducing said
information record medium according to claim 1 on an information
20 reproduction apparatus comprising: (i) a reproduction device capable
of reproducing said content information, said menu information and
said play list information; (ii) a displaying and outputting device
capable of displaying and outputting said content information and
said menu information; and (iii) a specifying device capable of
25 externally specifying whether to display or not to display said menu
information on said displaying and outputting device,

said information reproduction method comprising:

5 a first control process of controlling said reproducing device to reproduce said content information and said menu information, in accordance with the item information and the slave item information included in said play list information reproduced by said reproducing device; and

10 a second control process of controlling said displaying and outputting device such that said reproduced menu information is displayed and outputted with being superimposed on or in place of one portion of said reproduced content information corresponding to said reproduced menu information or is not displayed at all, selectively in accordance with external specification by said specifying device.

15 15. An information record reproduction apparatus, comprising:

a first record device for recording a series of content information and menu information as for said content information, which is to be displayed with said content information during reproduction of said content information;

20 a second record device for recording play list information for defining reproduction sequence of said content information by a unit of item, which constitutes said content information and which is accessible upon reproducing,

said second record device recording said play list information
25 such that said play list information includes: item information for specifying each item which constitutes said content information; and

slave item information for specifying said menu information corresponding to said each item as a slave item;

a reproduction device capable of reproducing said content information, said menu information, and said play list information;

5 a displaying and outputting device capable of displaying and outputting said content information and said menu information;

a specifying device capable of externally specifying whether to display or not to display said menu information on said displaying and outputting device; and

10 a control device for controlling said reproduction device to reproduce said content information and said menu information, in accordance with the item information and the slave item information included in said play list information reproduced by said reproducing device, and for controlling said displaying and outputting device such
15 that said reproduced menu information is displayed and outputted with being superimposed on or in place of one portion of said reproduced content information corresponding to said reproduced menu information or is not displayed at all, selectively in accordance with external specification by said specifying device.

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16. An information record reproduction method on an information reproduction apparatus comprising: (i) a reproduction device capable of reproducing content information, menu information and play list information; (ii) a displaying and outputting device capable of
25 displaying and outputting said content information and said menu information; and (iii) a specifying device capable of externally

specifying whether to display or not to display said menu information on said displaying and outputting device,

said information record reproduction method comprising:

5 a first record process of recording a series of content information and menu information as for said content information, which is to be displayed with said content information during reproduction of said content information;

10 a second record process of recording play list information for defining reproduction sequence of said content information by a unit of item, which constitutes said content information and which is accessible upon reproducing,

said second record process recording said play list information such that said play list information includes: item information for specifying each item which constitutes said content information; and
15 slave item information for specifying said menu information corresponding to said each item as a slave item;

a first control process of controlling said reproducing device to reproduce said content information and said menu information, in accordance with the item information and the slave item information
20 included in said play list information reproduced by said reproducing device; and

a second control process of controlling said displaying and outputting device such that said reproduced menu information is displayed and outputted with being superimposed on or in place of
25 one portion of said reproduced content information corresponding to said reproduced menu information or is not displayed at all,

selectively in accordance with external specification by said specifying device.

17. A computer program for a record control to control a computer
5 disposed at the information record apparatus according to claim 9,
said program making the computer function as at least a part of the
first record device and the second record device.

18. A computer program for a reproduction control to control a
10 computer disposed at the information reproduction apparatus
according to claim 11, said program making the computer function as
at least a part of the reproduction device, the displaying and
outputting device, the specifying device and the control device.

15 19. A computer program for a record reproduction control to
control a computer disposed at the information record reproduction
apparatus according to claim 15, said program making the computer
function as at least a part of the first record device, the second record
device, the reproduction device, the displaying and outputting device,
20 the specifying device, and the control device.

20. A data structure including a control signal, comprising
a series of content information;
menu information as for said content information, which is to
25 be displayed with said content information during reproduction of
said content information; and

play list information for defining reproduction sequence of said content information by a unit of item, which constitutes said content information and which is accessible upon reproducing,

5 said play list information including: item information for specifying each item which constitutes said content information; and slave item information for specifying said menu information corresponding to said each item as a slave item.